

Power ERP Table 430Mhz band only. Assume 10m Length of RG213 & which class of licence can use that power for a given antenna

BASE																						
TX PWR WATTS	Loss of Feeder Loss in Db of coax	Power at far end of coax Watts	Discone or $\frac{1}{4}\lambda$ ERP Output Watts				ERP Output: 6dbi or 3dbd aerial				ERP output: 7dbi or 4.5dbd aerial				ERP Output: 8.5dbi or 6dbd aerial				ERP Output: 10.5dbi or 9dbd aerial			
				F	I	A		F	I	A		F	I	A		F	I	A				
5	1.601 db loss	3.427	3.427 W	Y	Y	Y	6.9 W	Y	Y	Y	9.8 W	Y	Y	Y	13.8 W	N	N	Y	34.7 W	N	N	Y
10	1.601 db loss	6.854	6.854 W	Y	Y	Y	13.9 W	N	N	Y	19.6 W	N	N	Y	27.6W	N	N	Y	69.4 W	N	N	N
15	1.601 db loss	10.282	10.282 W	N	N	Y	20.8 W	N	N	Y	29.4 W	N	N	Y	41.5 W	N	N	N				
20	1.601 db loss	13.709	13.709 W	N	N	Y	27.7 W	N	N	Y	39.1 W	N	N	Y								
25	1.601 db loss	17.136	17.136 W	N	N	Y	34.6 W	N	N	Y	48.9 W	N	N	N								
30	1.601 db loss	20.563	20.563 W	N	N	Y	41.6 W	N	N	N												
35	1.601 db loss	23.99	24.0 W	N	N	Y																
40	1.601 db loss	27.417	27.417 W	N	N	Y																
45	1.601 db loss	30.854	30.845 W	N	N	Y																
50	1.601 db loss	24.272	34.2 W	N	N	Y																
55	1.601 db loss	37.699	37.699 W	N	N	Y																

F = Foundation  
I = Intermediate  
A = Full Licence (Advanced)

Note in practice losses will be higher as this table assumes a perfect match of 1.1 to 1 VSWR, Higher VSWR gives reflected power, lost to the aerial, also the connectors have for a frequency of 431.0Mhz.

check: Coaxial cable tables aerial gain claims in Db also Dbi loss and gain charts for your own station E & OE de G4MYS / 2E0ZBE

Calculations apply to 430 Mhz Band only

**MOBILE**

TX PWR WATTS	Assume 1.3-1 Mobile RG58 5m Length	Power at far end of coax Watts	3dbi ¼λ				ERP Output: 6dbi or 3dbd aerial				ERP output: 9dbi or 6dbd aerial			
				F	I	A		F	I	A		F	I	A
5	1.573 db loss	3.45	3.4 W	Y	Y	Y	6.8 W	Y	Y	Y	13.8 W	N	N	Y
10	1.573 db loss	6.9	6.9 W	Y	Y	Y	13.8 W	N	N	Y	27.6 W	N	N	Y
15	1.573 db loss	10.351	10.3 W	N	N	Y	20.7 W	N	N	Y	41.4W	N	N	N
20	1.573 db loss	13.801	13.8 W	N	N	Y	27.6 W	N	N	Y	55.2W	N	N	N
25	1.573 db loss	17.251	17.2 W	N	N	Y	34.5 W	N	N	Y	69.0 W	N	N	N
30	1.573 db loss	20.701	20.7 W	N	N	Y	41.4 W	N	N	Y	82.8 W	N	N	N
35	1.573 db loss	24.152	24.1 W	N	N	Y	48.3 W	N	N	Y	96.6 W	N	N	N
40	1.573 db loss	27.602	27.6 W	N	N	Y	55.2 W	N	N	Y	110.4 W	N	N	N
50	1.573 db loss	34.502	34.5 W	N	N	Y	69 W	N	N	Y	138.0 W	N	N	N